

Attachment H

List of Chemicals Covered by Final PAIR Rules, 2004-2007

Chemicals Listed in December 7, 2004 Section 8(a) PAIR - 69 FR 70552

<u>CAS No.</u>	<u>Substance</u>
* * * * * Pyridinamines:	
462-08-8	3-Pyridinamine.
504-24-5	4-Pyridinamine.
504-29-0	2-Pyridinamine
* * * * * Tungsten compounds:	
1314-35-8	Tungsten oxide (WO <sub>3</sub> )
7440-33-7	Tungsten
7783-03-1	Tungstate (WO <sub>4</sub> <sup>2-</sup> ), dihydrogen, (T- 4)
7783-82-6	Tungsten fluoride (WF <sub>6</sub> ), (OC-6-11)
7790-60-5	Tungstate (WO <sub>4</sub> <sup>2-</sup> ), dipotassium, (T-4)
7790-85-4	Cadmium tungsten oxide (CdWO <sub>4</sub> )
10213-10-2	Tungstate (WO <sub>4</sub> <sup>2-</sup> ), disodium, dihydrate, (T-4)
11105-11-6	Tungsten oxide (WO <sub>3</sub> ), hydrate
11120-01-7	Sodium tungsten oxide
11120-25-5	Tungstate (W <sub>12</sub> (OH) <sub>2</sub> O <sub>40</sub> <sup>10-</sup> ), decaammonium.
12027-38-2	Tungstate(4-),[.mu.12- [orthosilicato(4-)- .kappa.O:.kappa.O:.kappa.O:.kappa.O':.kappa.O':.kappa.O': .kappa.O":.kappa.O" :.kappa.O" :.kappa.O"":.kappa.O" :.kappa.O""]]tetracosa- .mu.- oxododecaoxododeca-, tetrahydrogen.
12028-48-7	Tungstate (W <sub>12</sub> (OH) <sub>2</sub> O <sub>38</sub> <sup>6-</sup> ), hexaammonium.
12036-22-5	Tungsten oxide (WO <sub>2</sub> )
12067-99-1	Tungsten hydroxide oxide phosphate.
12138-09-9	Tungsten sulfide (WS <sub>2</sub> )
12141-67-2	Tungstate (W <sub>12</sub> (OH) <sub>2</sub> O <sub>38</sub> <sup>6-</sup> ), hexasodium.
13283-01-7	Tungsten chloride (WCl <sub>6</sub> ), (OC-6-11)-
13472-45-2	Tungstate (WO <sub>4</sub> <sup>2-</sup> ), disodium, (T- 4)-.
14040-11-0	Tungsten carbonyl (W(CO) <sub>6</sub> ), (OC-6- 11)-.
23321-70-2	Tungsten oxide (WO <sub>3</sub> ), dihydrate.

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\* \* \* \* \* Voluntary HPV Challenge Program orphan (unsponsored) chemicals

<u>CAS No.</u>	<u>Substance</u>
62-56-6	Thiourea.
74-97-5	Methane, bromochloro-.
75-46-7	Methane, trifluoro-..
77-76-9	Propane, 2,2-dimethoxy-
77-86-1	1,3-Propanediol, 2- amino-2- (hydroxymethyl)-.
81-07-2	1,2-Benzisothiazol- 3(2H)-one, 1,1-dioxide.
81-16-3	1-Naphthalenesulfonic acid, 2-amino-.
81-84-5	1H,3H-Naphtho[1,8- cd]pyran-1,3-dione.
83-41-0	Benzene, 1,2-dimethyl- 3-nitro-.
84-69-5	1,2- Benzenedicarboxylic acid, bis(2- methylpropyl) ester.
85-40-5	1H-Isoindole-1,3(2H)- dione, 3a,4,7,7a- tetrahydro-.
91-68-9	Phenol, 3- (diethylamino)-.
94-96-2	1,3-Hexanediol, 2- ethyl-.
96-22-0	3-Pentanone..
97-00-7	Benzene, 1-chloro-2,4- dinitro-.
98-09-9	Benzenesulfonyl chloride.
98-16-8	Benzenamine, 3- (trifluoromethyl)-.
98-56-6	Benzene, 1-chloro-4- (trifluoromethyl)-.
99-51-4	Benzene, 1,2-dimethyl- 4-nitro-.
100-64-1	Cyclohexanone, oxime..
101-34-8	9-Octadecenoic acid, 12-(acetyloxy)-, 1,2,3- propanetriyl ester, (9Z,9'Z,9"Z,12R,12'R, 12"R)-.
104-66-5	Benzene, 1,1'-[1,2- ethanediylbis(oxy)]bis- .
104-93-8	Benzene, 1-methoxy-4- methyl-.
107-39-1	1-Pentene, 2,4,4- trimethyl-.
107-40-4	2-Pentene, 2,4,4- trimethyl-.
107-45-9	2-Pentanamine, 2,4,4- trimethyl-.
110-18-9	1,2-Ethanediamine, N,N,N',N'-tetramethyl-.
110-33-8	Hexanedioic acid, dihexyl ester.
111-44-4	Ethane, 1,1'-oxybis[2- chloro-.
111-85-3	Octane, 1-chloro-..
111-91-1	Ethane, 1,1'- [methylenebis(oxy)]bis [2-chloro-.
118-90-1	Benzoic acid, 2-methyl-.
119-33-5	Phenol, 4-methyl-2- nitro-.
121-69-7	Benzenamine, N,N- dimethyl-.
121-82-4	1,3,5-Triazine, hexahydro-1,3,5- trinitro-.

124-63-0	Methanesulfonyl chloride.
127-68-4	Benzenesulfonic acid, 3-nitro-, sodium salt.
131-57-7	Methanone, (2-hydroxy- 4-methoxyphenyl)phenyl- .
137-20-2	Ethanesulfonic acid, 2- [methyl[(9Z)-1-oxo-9-octadecenyl]amino]-, sodium salt.
138-25-0	1,3- Benzenedicarboxylic acid, 5-sulfo-, 1,3- dimethyl ester.
139-40-2	1,3,5-Triazine-2,4- diamine, 6-chloro-N,N'- bis(1-methylethyl)-.
140-93-2	Carbonodithioic acid, O-(1-methylethyl) ester, sodium salt.
142-73-4	Glycine, N- (carboxymethyl)-.
150-50-5	Phosphorotrithious acid, tributyl ester.
330-54-1	Urea, N'-(3,4- dichlorophenyl)-N,N- dimethyl-.
460-00-4	Benzene, 1-bromo-4- fluoro-.
506-51-4	1-Tetracosanol
506-52-5	1-Hexacosanol
513-74-6	Carbamodithioic acid, monoammonium salt.
515-40-2	Benzene, (2-chloro-1,1- dimethylethyl)-.
529-33-9	1-Naphthalenol, 1,2,3,4-tetrahydro-.
529-34-0	1(2H)-Naphthalenone, 3,4-dihydro-.
542-92-7	1,3-Cyclopentadiene..
557-61-9	1-Octacosanol.
563-72-4	Ethanedioic acid, calcium salt (1:1).
579-66-8	Benzenamine, 2,6- diethyl-.
590-19-2	1,2-Butadiene....
592-45-0	1,4-Hexadiene.
598-72-1	Propanoic acid, 2- bromo-.
617-94-7	Benzenemethanol, .alpha.,.alpha.- dimethyl-.
628-13-7	Pyridine, hydrochloride.
628-96-6	1,2-Ethandiol, dinitrate.
645-62-5	2-Hexenal, 2-ethyl..
693-07-2	Ethane, 1-chloro-2- (ethylthio)-.
693-95-8	Thiazole, 4-methyl..
756-80-9	Phosphorodithioic acid, O,O-dimethyl ester.
870-72-4	Methanesulfonic acid, hydroxy-, monosodium salt.
928-72-3	Glycine, N- (carboxymethyl)-, disodium salt.
939-97-9	Benzaldehyde, 4-(1,1- dimethylethyl)-.
1000-82-4	Urea, (hydroxymethyl)-
1002-69-3	Decane, 1-chloro-...
1111-78-0	Carbamic acid, monoammonium salt.
1115-20-4	Propanoic acid, 3- hydroxy-2,2-dimethyl-, 3-hydroxy-2,2-dimethylpropyl ester.
1401-55-4	Tannins.

1445-45-0 Ethane, 1,1,1- trimethoxy-.  
 1459-93-4 1,3-Benzenedicarboxylic acid, dimethyl ester.  
 1498-51-7 Phosphorodichloridic acid, ethyl ester.  
 1558-33-4 Silane, dichloro(chloromethyl) methyl-.  
 1738-25-6 Propanenitrile, 3- (dimethylamino)-.  
 1912-24-9 1,3,5-Triazine-2,4- diamine, 6-chloro-N- ethyl-N'-(1- methylethyl)-.  
 2152-64-9 Benzenamine, N-phenyl- 4-[[4- (phenylamino)phenyl][4- (phenylimino)-2,5- cyclohexadien-1- ylidene]methyl]-, monohydrochloride.  
  
 2210-79-9 Oxirane, [(2- methylphenoxy)methyl]-.  
 2372-45-4 1-Butanol, sodium salt  
 2409-55-4 Phenol, 2-(1,1- dimethylethyl)-4- methyl-.  
 2425-54-9 Tetradecane, 1-chloro-  
 2494-89-5 Ethanol, 2-[(4- aminophenyl)sulfonyl]- , hydrogen sulfate (ester).  
 2524-03-0 Phosphorochloridothioic acid, O,O-dimethyl ester.  
 2611-00-9 3-Cyclohexene-1- carboxylic acid, 3- cyclohexen-1-ylmethyl ester.  
 2691-41-0 1,3,5,7-Tetrazocine, octahydro-1,3,5,7- tetranitro-.  
 2814-20-2 4(1H)-Pyrimidinone, 6- methyl-2-(1- methylethyl)-.  
 2905-62-6 Benzoyl chloride, 3,5- dichloro-.  
 2915-53-9 2-Butenedioic acid (2Z)-, dioctyl ester.  
 3039-83-6 Ethenesulfonic acid, sodium salt.  
 3088-31-1 Ethanol, 2-[2- (dodecyloxy)ethoxy]-, hydrogen sulfate, sodium salt.  
 3132-99-8 Benzaldehyde, 3-bromo-  
 3338-24-7 Phosphorodithioic acid, O,O-diethyl ester, sodium salt.  
 3386-33-2 Octadecane, 1-chloro-.  
 3710-84-7 Ethanamine, N-ethyl-N- hydroxy-.  
 3779-63-3 1,3,5-Triazine- 2,4,6(1H,3H,5H)- trione, 1,3,5-tris(6- isocyanatohexyl)-.  
 3965-55-7 1,3- Benzenedicarboxylic acid, 5-sulfo-, 1,3- dimethyl ester, sodium salt.  
 4035-89-6 Imidodicarbonic diamide, N,N',2-tris(6- isocyanatohexyl)-.  
 4170-30-3 2-Butenal.  
 4316-73-8 Glycine, N-methyl-, monosodium salt.  
 4860-03-1 Hexadecane, 1-chloro-.  
 5026-74-4 Oxiranemethanamine, N- [4- (oxiranylmethoxy)pheny l]-N- (oxiranylmethyl)-.  
 5216-25-1 Benzene, 1-chloro-4- (trichloromethyl)-.  
 5460-09-3 2,7- Naphthalenedisulfonic acid, 4-amino-5- hydroxy-, monosodium salt.

5915-41-3 1,3,5-Triazine-2,4- diamine, 6-chloro-N- (1,1-dimethylethyl)-N'-ethyl-.

6473-13-8 2-Naphthalenesulfonic acid, 6-[(2,4- diaminophenyl)azo]-3- [[4-[[4-[[7-[(2,4- diaminophenyl)azo]-1- hydroxy-3-sulfo-2-naphthalenyl]azo]pheny l]amino]-3- sulfophenyl]azo]-4-hydroxy-, trisodium salt.

6863-58-7 Butane, 2,2'-oxybis-.

6865-35-6 Octadecanoic acid, barium salt.

7320-37-8 Oxirane, tetradecyl-..

7795-95-1 1-Octanesulfonyl chloride.

8001-58-9 Creosote.

10265-69-7 Glycine, N-phenyl-, monosodium salt.

13749-94-5 Ethanimidothioic acid, N-hydroxy-, methyl ester.

13826-35-2 Benzenemethanol, 3- phenoxy-.

14666-94-5 9-Octadecenoic acid (9Z)-, cobalt salt.

17103-31-0 Urea, sulfate (2:1)...

17321-47-0 Phosphoramidothioic acid, O,O-dimethyl ester.

17976-43-1 2,4,6,8,3,5,7- Benzotetraoxatriplumba cycloundecin-3,5,7- triylidene, 1,9- dihydro-1,9-dioxo-.

19438-61-0 1,3- Isobenzofurandione, 5- methyl-.

19525-59-8 Glycine, N-phenyl-, monopotassium salt.

20068-02-4 2-Butenenitrile, 2- methyl-, (2Z)-.

20227-53-6 Phosphorous acid, 2- (1,1-dimethylethyl)-4- [1-[3-(1,1- dimethylethyl)-4- hydroxyphenyl]-1- methylethyl]phenyl bis(4-nonylphenyl) ester.

20469-71-0 Hydrazinecarbodithioic acid, compd. with hydrazine (1:1).

21351-39-3 Urea, sulfate (1:1).

22527-63-5 Propanoic acid, 2- methyl-, 3- (benzoyloxy)-2,2,4- trimethylpentyl ester.

24615-84-7 2-Propenoic acid, 2- carboxyethyl ester.

24794-58-9 Formic acid, compd. with 2,2',2''- nitrilotris[ethanol] (1:1).

25154-38-5 Piperazineethanol.

25168-05-2 Benzene, chloromethyl-,

25168-06-3 Phenol, (1- methylethyl)-.

25321-41-9 Benzenesulfonic acid, dimethyl-.

25383-99-7 Octadecanoic acid, 2- (1-carboxyethoxy)-1- methyl-2-oxoethyl ester, sodium salt.

25646-71-3 Methanesulfonamide, N-[2-[(4-amino-3- methylphenyl)ethylamin o]ethyl]-, sulfate (2:3).

26377-29-7 Phosphorodithioic acid, O,O-dimethyl ester, sodium salt.

26401-27-4 Phosphorous acid, isooctyl diphenyl ester.

26680-54-6 2,5-Furandione, dihydro-3-(octenyl)-.

27193-28-8 Phenol, (1,1,3,3- tetramethylbutyl)-.  
 28106-30-1 Benzene, ethenylethyl-  
 28188-24-1 Octadecanoic acid, 2- (hydroxymethyl)-2-[[1-oxooctadecyl)oxy)methyl]-1,3-propanediyl ester.  
 28777-98-2 2,5-Furandione, dihydro-3- (octadecenyl)-.  
 28908-00-1 Benzothiazole, 2- [(chloromethyl)thio]-.  
 30574-97-1 2-Butenenitrile, 2- methyl-, (2E)-.  
 32072-96-1 2,5-Furandione, 3- (hexadecenyl)dihydro-.  
 33509-43-2 1,2,4-Triazin-5(2H)- one, 4-amino-6-(1,1- dimethylethyl)-3,4- dihydro-3-thioxo-.  
 34689-46-8 Phenol, methyl-, sodium salt.  
 35203-06-6 Benzenamine, 2-ethyl-6- methyl-N-methylene-.  
 35203-08-8 Benzenamine, 2,6- diethyl-N-methylene-.  
 37734-45-5 Carbonochloridothioic acid, S-(phenylmethyl) ester.  
 37764-25-3 Acetamide, 2,2- dichloro-N,N-di-2- propenyl-.  
 38185-06-7 Benzenesulfonic acid, 4-chloro-3,5-dinitro-, potassium salt.  
 38321-18-5 Ethanol, 2-(2- butoxyethoxy)-, sodium salt.  
 39515-51-0 Benzaldehyde, 3- phenoxy-.  
 40630-63-5 1-Octanesulfonyl fluoride.  
 40876-98-0 Butanedioic acid, oxo- , diethyl ester, ion(1- ), sodium.  
 51632-16-7 Benzene, 1- (bromomethyl)-3- phenoxy-.  
 52184-19-7 Phenol, 2,4-bis(1,1- dimethylpropyl)-6-[(2- nitrophenyl)azo]-.  
 52556-42-0 1-Propanesulfonic acid, 2-hydroxy-3-(2- propenyloxy)-, monosodium salt.  
 52663-57-7 Ethanol, 2-butoxy-, sodium salt.  
 56803-37-3 Phosphoric acid, (1,1- dimethylethyl)phenyl diphenyl ester.  
 57693-14-8 Chromate(3-), bis[3- (hydroxy-.kappa.O)-4- [[2-(hydroxy-.kappa.O)- 1-naphthalenyl]azo- .kappa.N1]-7-nitro-1-naphthalenesulfonato(3- )]-, trisodium.  
 61788-44-1 Phenol, styrenated.  
 61788-76-9 Alkanes, chloro.  
 61789-32-0 Fatty acids, coco, 2- sulfoethyl esters, sodium salts.  
 61789-85-3 Sulfonic acids, petroleum.  
 63302-49-8 Phosphorochloridous acid, bis(4- nonylphenyl) ester.  
 64743-02-8 Alkenes, C>10 .alpha.-  
 64743-03-9 Phenols (petroleum).  
 65996-79-4 Solvent naphtha (coal)  
 65996-80-7 Ammonia liquor (coal).  
 65996-81-8 Fuel gases, coke-oven.  
 65996-82-9 Tar oils, coal.  
 65996-83-0 Extracts, coal tar oil alk..  
 65996-86-3 Extract oils (coal), tar base.  
 65996-87-4 Extract residues (coal), tar oil alk..

65996-89-6 Tar, coal, high-temp.

65996-91-0 Distillates (coal tar), upper.

65996-92-1 Distillates (coal tar)

66071-94-1 Corn, steep liquor.

68081-86-7 Phenol, nonyl derivs..

68082-78-0 Lard, oil, Me esters..

68153-60-6 Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates.

68187-41-7 Phosphorodithioic acid, O,O-di-C1-14- alkyl esters.

68187-57-5 Pitch, coal tar- petroleum.

68187-59-7 Coal, anthracite, calcined.

68188-18-1 Paraffin oils, chlorosulfonated, saponified.

68308-74-7 Amides, tall-oil fatty, N,N-di-Me.

68309-16-0 Fatty acids, tall-oil, 2-(2- hydroxyethoxy)ethyl esters.

68309-27-3 Fatty acids, tall-oil, sulfonated, sodium salts.

68334-01-0 Disulfides, alkylaryl dialkyl diaryl, petroleum refinery spent caustic oxidn. products.

68441-66-7 Decanoic acid, mixed esters with dipentaerythritol, octanoic acid and valeric acid.

68442-60-4 Acetaldehyde, reaction products with formaldehyde, by- products from.

68442-77-3 2-Butenediamide, (2E)- , N,N'-bis[2-(4,5- dihydro-2-nortall-oil alkyl-1H-imidazol-1- yl)ethyl] derivs..

68457-74-9 Phenol, isobutyleneated methylstyrenated.

68476-80-2 Fats and Glyceridic oils, vegetable, deodorizer distillates.

68478-20-6 Residues (petroleum), steam-cracked petroleum distillates cyclopentadiene conc., C4-cyclopentadiene- free.

68513-62-2 Disulfides, C5-12-alkyl

68514-41-0 Ketones, C12-branched.

68515-89-9 Barium, carbonate nonylphenol complexes.

68527-22-0 Naphtha (petroleum), clay-treated light straight-run.

68584-25-8 Benzenesulfonic acid, C10-16-alkyl derivs., compds. with triethanolamine.

68602-81-3 Distillates, hydrocarbon resin prodn. higher boiling.

68603-84-9 Carboxylic acids, C5-9

68608-59-3 Ethane, 1,2-dichloro-, manuf. of, by-products from, distn. lights.

68609-05-2 Cyclohexane, oxidized, non-acidic by- products, distn. lights.

68610-90-2 2-Butenedioic acid (2E)- , di-C8-18-alkyl esters.

68649-42-3 Phosphorodithioic acid, O,O-di-C1-14- alkyl esters, zinc salts.

68650-36-2 Aromatic hydrocarbons, C8, o-xylene-lean.

68782-97-8 Distillates (petroleum), hydrofined lubricating- oil.

68815-50-9 Octadecanoic acid, reaction products with 2-[(2-aminoethyl)amino]ethan ol.

68909-77-3 Ethanol, 2,2'-oxybis-, reaction products with ammonia, morpholine derivs. residues.

68915-05-9 Fatty acids, tall-oil, low-boiling, reaction products with ammonia-ethanolamine reaction by-products.

68915-39-9 Cyclohexane, oxidized, aq. ext., sodium salt.

68918-16-1 Tar, coal, dried and oxidized.

68919-17-5 Hydrocarbons, C12-20, catalytic alkylation by-products.

68937-29-1 1,6-Hexanediol, distn. residues.

68937-69-9 Carboxylic acids, C6- 18 and C5-15-di-.

68937-70-2 Carboxylic acids, C6- 18 and C8-15-di-.

68937-72-4 Carboxylic acids, di-, C4-11.

68953-80-0 Benzene, mixed with toluene, dealkylation product.

68955-37-3 Acid chlorides, tallow, hydrogenated.

68955-76-0 Aromatic hydrocarbons, C9-16, biphenyl deriv.- rich.

68987-41-7 Benzene, ethylenated..

68987-66-6 Ethene, hydrated, by- products from.

68988-22-7 1,4- Benzenedicarboxylic acid, dimethyl ester, manuf. of, by-products from.

68990-61-4 Tar, coal, high-temp., high-solids.

68990-65-8 Fats and Glyceridic oils, vegetable, reclaimed.

70084-98-9 Terpenes and Terpenoids, C10-30, distn. residues.

70693-50-4 Phenol, 2,4-bis(1- methyl-1-phenylethyl)- 6-[(2-nitrophenyl)azo]- .

70851-08-0 Amides, coco, N-[3- (dimethylamino)propyl] , alkylation products with sodium 3-chloro-2- hydroxypropanesulfonat e.

71077-05-9 Ethanol, 2,2'-oxybis-, reaction products with ammonia, morpholine product tower residues.

72162-15-3 1-Decene, sulfurized

72162-28-8 2-Propanone, reaction products with phenol.

72854-27-4 Tannins, reaction products with sodium bisulfite, sodium polysulfide and sodium sulfite.